

SR-241/SR-91 Express Lanes Connector Project



Supplemental Natural Environment Study

SR-241/SR-91 Express Lanes Connector Project

12-ORA-241 PM 36.1/39.1

12-ORA-91 PM 14.7/18.9

08-RIV-91 PM 0.0/1.5

EA No. 12-0K9700

Project No. 1200020097

April 2016



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STATE OF CALIFORNIA
Department of Transportation
District 12

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Summary

The California Department of Transportation (Caltrans) District 12, in cooperation with the Foothill/Eastern Transportation Corridor Agency (F/ETCA) proposes the State Route 241/State Route 91 (SR-241/SR-91) Express Lanes Connector Project (Proposed Project) to construct a median-to-median connector between SR-241 and the tolled lanes in the median of SR-91 (SR-91 Express Lanes). SR-241 is a tolled facility, starting at the Oso Parkway interchange, in south Orange County, to its terminus at SR-91. The SR-91 Express Lanes is a two-lane tolled facility located within the median of SR-91, from State Route 55 (SR-55), to the Orange/Riverside County line (east of the SR-241 interchange). The existing interchange connects all lanes of the northbound and southbound SR-241 to non-tolled, general purpose lanes of eastbound and westbound SR-91. There is currently no direct connection between the SR-241 and the SR-91 Express Lanes.

The Proposed Project, located at the junction of SR-241 and SR-91 and in the cities of Anaheim, Yorba Linda, and Corona and counties of Orange and Riverside, would provide improved access between SR-241 and SR-91 and is proposed to be a tolled facility. The proposed median-to-median connector project encompasses 12-ORA-241 (Post Mile [PM] 36.1/39.1), 12-ORA-91 (PM 14.7/18.9), and 08 RIV-91 (PM 0.0/1.5) for a length of approximately 8.7 miles (mi).

Improvements for the connector are limited to 5.9 mi in the cities of Anaheim and Yorba Linda from south of the Windy Ridge Wildlife Undercrossing on SR-241 to Coal Canyon Undercrossing on SR-91. The remaining 2.8 mi of the Proposed Project is limited to FasTrak signage improvements (advance signage) in the cities of Anaheim (1.2 mi total), Yorba Linda (0.1 mi), and Corona (1.5 mi), with exact placement pending the Final Design process. The Proposed Project is mostly within existing Caltrans right-of-way, with one partial acquisition adjacent to eastbound SR-91. Construction access and staging areas would occur within existing Caltrans right-of-way.

This Supplemental Natural Environment Study has been prepared to address changes to the construction access for the Proposed Project as well as address comments from the United States Fish and Wildlife Service.

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List of Abbreviated Terms

ac	acre(s)
amsl	above mean sea level
BMPs	Best Management Practices
BSA	Biological Study Area
CAGN	coastal California gnatcatcher
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CIP	Corridor Improvement Project
CNDDDB	California Natural Diversity Data Base
CNPS	California Native Plant Society
CNPSEI	California Native Plant Society's Electronic Inventory of Rare and Endangered Vascular Plants of California
County	County of Orange
CRPR	California Rare Plant Rank
CSS	coastal sage scrub
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
ESA	Environmentally Sensitive Area
ETC	Eastern Transportation Corridor
Express Lanes	tolled freeway lanes
F/ETCA	Foothill/Eastern Transportation Corridor Agency
FESA	Federal Endangered Species Act
ft	foot/feet
HCP	Habitat Conservation Plan
HOV	high-occupancy vehicle
I-5	Interstate 5
I-15	Interstate 15
IPaC	USFWS Information, Planning, and Conservation
LSA	LSA Associates, Inc.
mi	mile(s)
NCASI	National Council for Air and Stream Improvement, Inc.
NCCP	Natural Community Conservation Plan
NEPA	National Environmental Policy Act

List of Abbreviated Terms

NES	Natural Environment Study
No.	Number
PM	Post Mile
SMC	Systems Management Concept
SR-55	State Route 55 (also called the Costa Mesa Freeway)
SR-91	State Route 91
SR-241	State Route 241
TCA	Transportation Corridor Agencies
U.S.	United States
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WR-MSHCP	Western Riverside County Multiple Species Habitat Conservation Plan

Chapter 1. Introduction

The California Department of Transportation (Caltrans) District 12, in cooperation with the Foothill/Eastern Transportation Corridor Agency (F/ETCA) proposes the State Route 241 (SR-241)/State Route 91 (SR-91) Express Lanes Connector Project (Proposed Project) to construct a median-to-median connector between SR-241 and the tolled lanes in the median of SR-91 (*91 Express Lanes*). SR-241 is a tolled facility, starting at the Oso Parkway interchange, in south Orange County, to its terminus at SR-91. The *91 Express Lanes* is a two-lane tolled facility located within the median of SR-91, from State Route 55 (SR-55), to the Orange/Riverside County line (east of the SR-241 interchange). The existing interchange connects all lanes of the northbound and southbound SR-241 to non-tolled, general purpose lanes of eastbound and westbound SR-91. There is currently no direct connection between the SR-241 and the *91 Express Lanes*.

This Supplemental Natural Environment Study (NES) has been prepared to include additional information and changes to the Proposed Project subsequent to NES approval. These include the following:

1. Proposed construction access points
2. Comments from the United States Fish and Wildlife Service (USFWS)
3. An updated USFWS species list

1.1. Project History

1.1.1. Project Purpose

In addition to the originally intended objectives, changed circumstances at the junction of SR-241 and SR-91 have led to the revised objectives for the Proposed Project:

- Implement the build out of the Eastern Transportation Corridor (ETC), as approved in 1994;
- Attain compatibility with the SR-91 mainline and SR-91 Express Lanes;
- Improve traffic flow and operations by reducing weaving across multiple general purpose lanes between the SR-91 Express Lanes and the SR-241 general purpose lane connectors
- Enhance the efficiency of the tolled system, thereby reducing congestion on the non-tolled system on SR-91

1.1.2. Project Need

There is a need for improved access between SR-241 and SR-91. Roadway deficiencies are described below:

- Demand exceeds capacity on the northbound SR-241 connector to eastbound SR-91 and on the westbound SR-91 connector to southbound SR-241.
- Northbound vehicles on SR-241 cannot access the eastbound SR-91 Express Lanes. Access from northbound SR-241 to eastbound SR-91 is provided by means of a two-lane connector that merges with the SR-91 general purpose lanes.
- Westbound SR-91 Express Lanes motorists cannot access southbound SR-241. Access from westbound SR-91 to southbound SR-241 is provided by means of a two-lane connector that diverges from the general purpose lanes. As a result, weaving across multiple SR-91 general purpose lanes is required to access SR-241.
- The weaving between the general purpose connectors and the median lanes is an issue because it degrades the level of service due to increased vehicle density. In addition, the weaving operations contribute to sideswipe accidents.

1.2. Project Description

Caltrans District 12, in cooperation with F/ETCA proposes the SR-241/SR-91 Express Lanes Connector Project (Proposed Project) to construct a median-to-median connector between SR-241 and the tolled lanes in the median of SR-91 (SR-91 Express Lanes). SR-241 is a tolled facility, starting at the Oso Parkway interchange, in south Orange County, to its terminus at SR-91. The SR-91 Express Lanes is a two-lane tolled facility located within the median of SR-91, from SR-55, to the Orange/Riverside County line (east of the SR-241 interchange). The existing interchange connects all lanes of the northbound and southbound SR-241 to non-tolled, general purpose lanes of eastbound and westbound SR-91. There is currently no direct connection between the SR-241 and the SR-91 Express Lanes.


The Proposed Project, located at the junction of SR-241 and SR-91 and in the cities of Anaheim, Yorba Linda, and Corona and the counties of Orange and Riverside, would provide improved access between SR-241 and SR-91 and is proposed to be a tolled facility. The proposed median-to-median connector project encompasses 12-ORA-241 (Post Mile [PM] 36.1/39.1), 12-ORA-91 (PM 14.7/18.9), and 08 RIV-91 (PM 0.0/1.5) for a length of approximately 8.7 miles (mi). The Project Location and Project Vicinity are shown on Figure 1.



FIGURE 1

LEGEND

Project Location

 Advance Signage Areas



SOURCE: USGS 7.5' Quad - Black Star Canyon (1988), CA

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SR-241/SR-91 Express Lanes Connector
Project Location

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Improvements for the connector are limited to 5.9 mi in the cities of Anaheim and Yorba Linda from south of the Windy Ridge Wildlife Undercrossing on SR-241 to Coal Canyon Undercrossing on SR-91. The remaining 2.8 mi of the Proposed Project is limited to FasTrak signage improvements (advance signage) in the cities of Anaheim (1.2 mi total), Yorba Linda (0.1 mi), and Corona (1.5 mi), with exact placement pending the Final Design process. The Proposed Project is mostly within existing Caltrans right-of-way, with one partial acquisition adjacent to eastbound SR-91. Construction access and staging areas would occur within existing Caltrans right-of-way.

The proposed median-to-median connector is a later phase of the ETC project, previously approved in 1994. It was originally evaluated as a SR-241/SR-91 high-occupancy vehicle (HOV) direct connector in the 1991 ETC Draft Environmental Impact Report (EIR)/Environmental Impact Statement (EIS), the 1992 ETC Final EIR, and the 1994 ETC Final EIS (all of which studied a broader project area with improvements on State Route 133, SR-241, and State Route 261).

The Systems Management Concept (SMC) for the ETC projected that each Build Alternative would be staged, incorporating general purpose traffic and eventually HOV lanes, to meet the forecasted demand. Under the SMC, ETC construction would be completed in one stage, with three or more phases.

The Proposed Project is being coordinated with the Orange County Transportation Authority (OCTA) and the Riverside County Transportation Commission (RCTC). The *91 Express Lanes* are tolled and are operated by OCTA, from SR-55 to the Orange County/Riverside County line. Easterly from the county line, the lanes are HOV non-tolled lanes; however, as part of the RCTC SR-91 Corridor Improvement Project (SR-91 CIP), RCTC will operate median tolled lanes starting from the County line and ending at Interstate 15 (I-15). As part of the SR-91 CIP, the median tolled lanes include a connector to southbound I-15 general purpose lanes. Implementation of the SR-91 CIP along with the Proposed Project would provide a direct connection between SR-241 and southbound I-15.

1.3. Project Alternatives

Two alternatives are being analyzed in this document: the Build Alternative and the No Build Alternative.

1.3.1. Build Alternative (Two-Lane Express Lanes Connector)

The Build Alternative would construct a two-lane express lane median-to-median connector between SR-241 and SR-91, which would connect lanes from the median of northbound SR-241 to the existing eastbound median *91 Express Lanes* and the reverse movement from the westbound median *91 Express Lanes* to the median of southbound SR-241. The connector would be tolled. The Build Alternative is shown on Figure 2.

The Build Alternative would merge into the existing OCTA *91 Express Lanes* at Coal Canyon Undercrossing. The RCTC SR-91 CIP will extend the express lanes on SR-91 east to I-15. The Build Alternative is compatible with the approved SR-91 CIP for both the initial and ultimate configurations, including the number and widths of the express lanes, the express auxiliary lanes, and the general purpose lanes.

1.3.1.1. Improvements on Southbound SR-241

On southbound SR-241, an additional lane and shoulder would be provided by widening Windy Ridge Wildlife Undercrossing into the existing median and improving the highway median for approximately 10,000 feet (ft) to the north.

1.3.1.2. Improvements on Northbound SR-241

Starting approximately 3,800 ft north of the Windy Ridge Wildlife Undercrossing, an additional lane and shoulder would be provided by widening into the existing highway median for approximately 5,000 ft. The two express (northbound and southbound) connector lanes would converge in the existing SR-241 median on fill for approximately 800 ft. The connector then spans over the existing northbound SR-241 to the westbound SR-91 general purpose lane connector and the SR-91/Gypsum Canyon Road interchange on two new bridge structures approximately 570 ft and 1,590 ft in length, respectively (to merge in the median of SR-91).

1.3.1.3. Improvements on Eastbound SR-91

To accommodate the addition of the median-to-median connector, eastbound SR-91 would be realigned to the south. The northbound SR-241 to eastbound *91 Express Lanes* connector would continue on eastbound SR-91, ending approximately 1,000 ft west of Coal Canyon Undercrossing. An eastbound auxiliary express lane would be constructed within the *91 Express Lanes*. The proposed auxiliary express lane would begin approximately 2,000 ft east of Gypsum Canyon Road Undercrossing to Coal Canyon Undercrossing joining the initial phase of the SR-91 CIP at Coal Canyon Undercrossing. These improvements would provide a four-lane express lane facility,

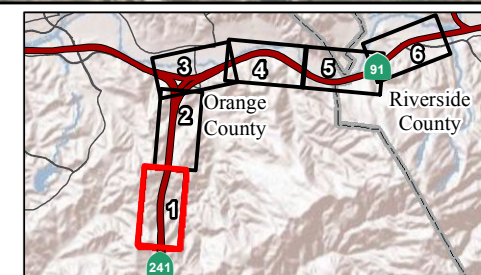
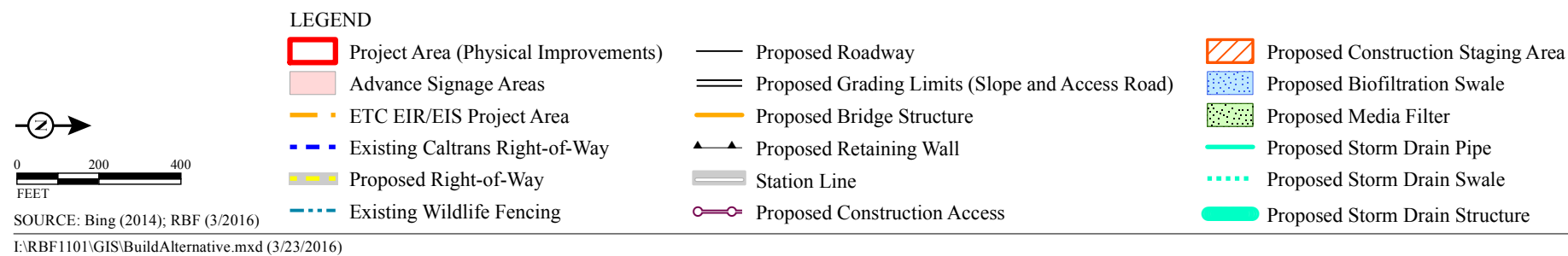
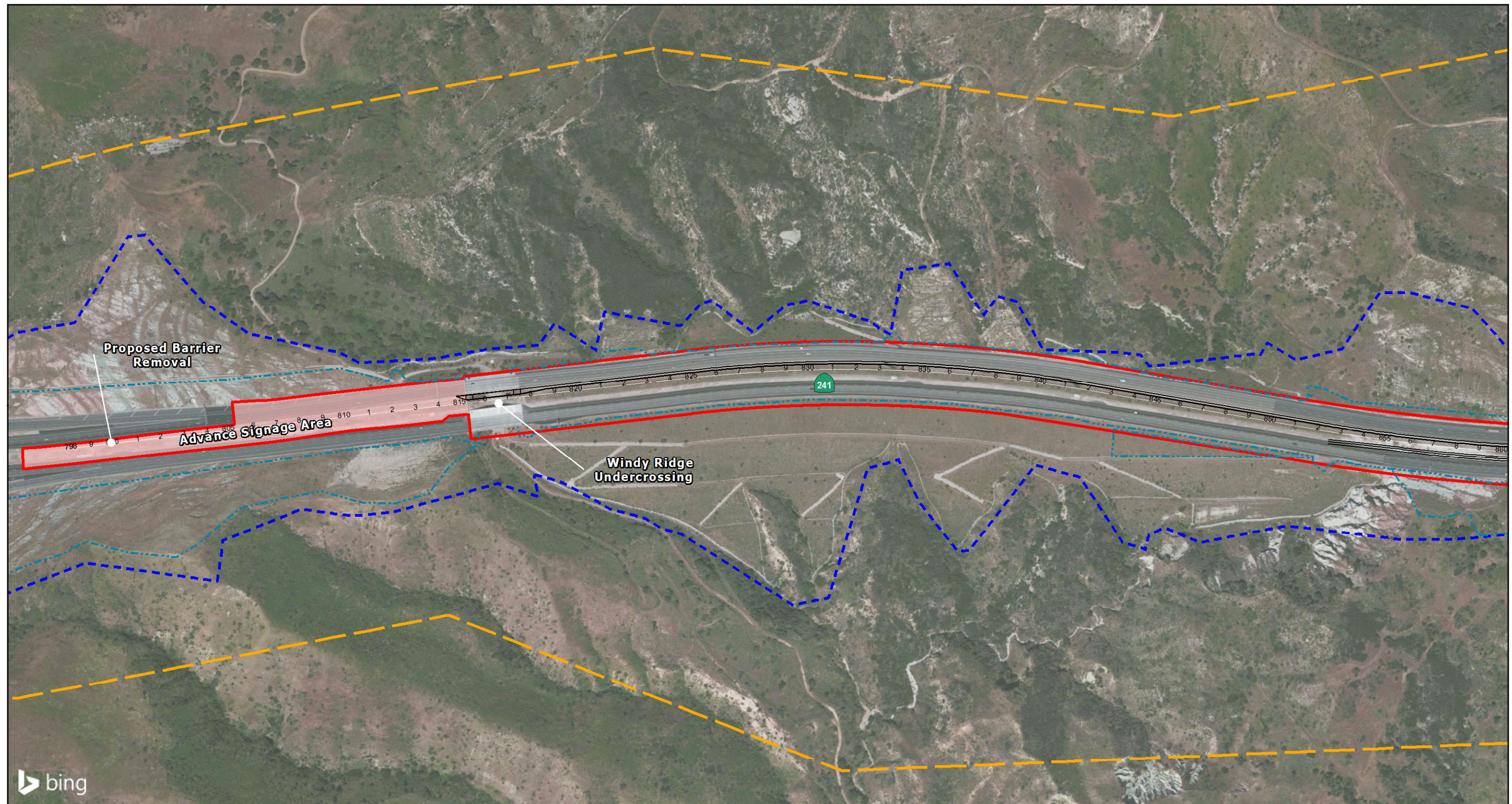
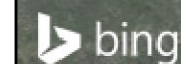
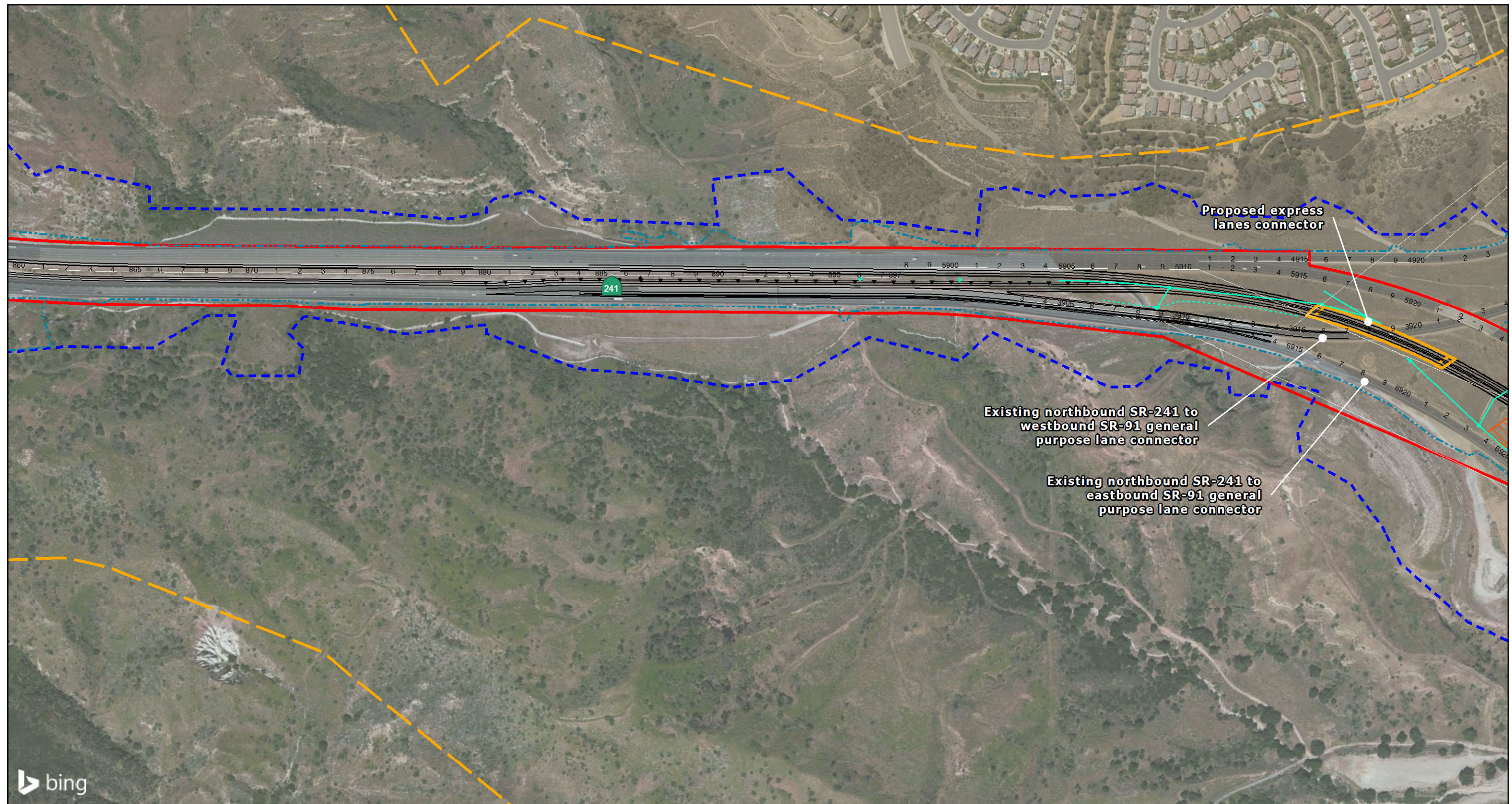


FIGURE 2
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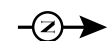
SR-241/SR-91 Express Lanes Connector
 Build Alternative

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LEGEND

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| Project Area (Physical Improvements) | Proposed Roadway | Proposed Construction Staging Area |
| Advance Signage Areas | Proposed Grading Limits (Slope and Access Road) | Proposed Biofiltration Swale |
| ETC EIR/EIS Project Area | Proposed Bridge Structure | Proposed Media Filter |
| Existing Caltrans Right-of-Way | Proposed Retaining Wall | Proposed Storm Drain Pipe |
| Proposed Right-of-Way | Station Line | Proposed Storm Drain Swale |
| Existing Wildlife Fencing | Proposed Construction Access | Proposed Storm Drain Structure |



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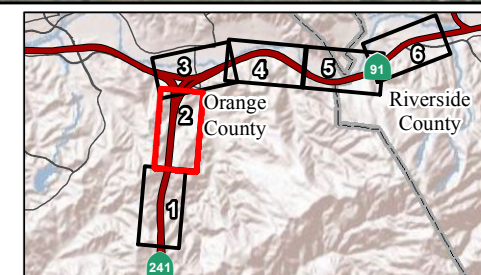
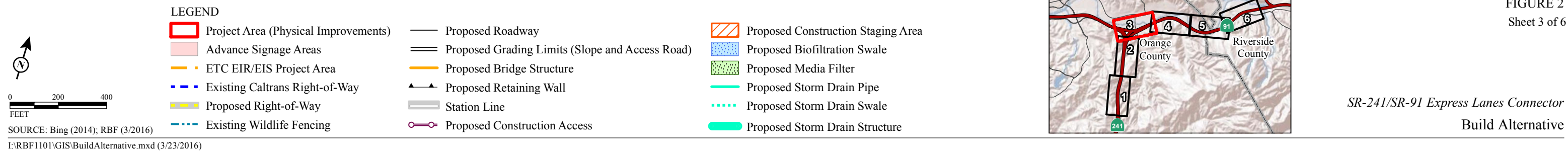
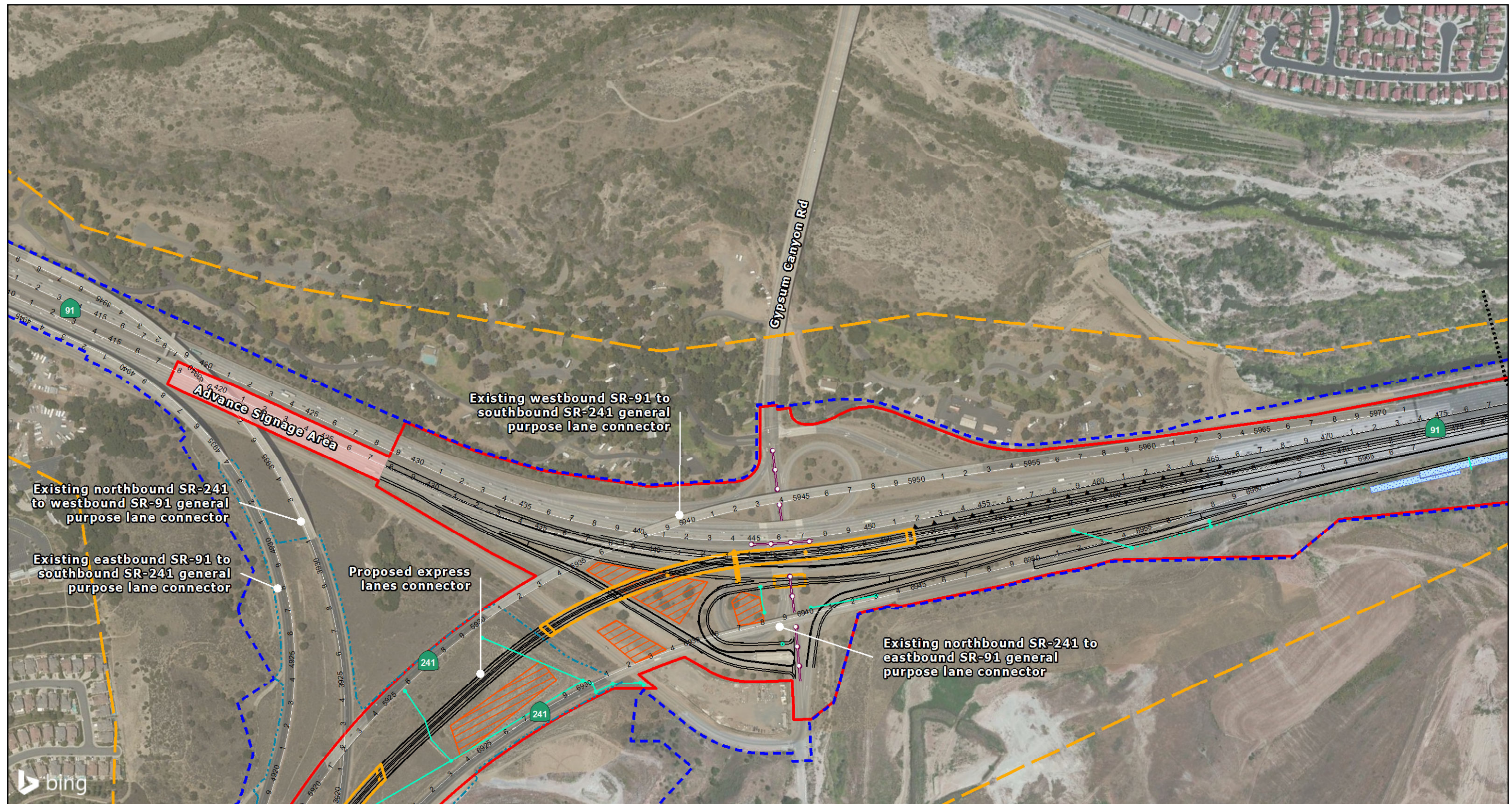


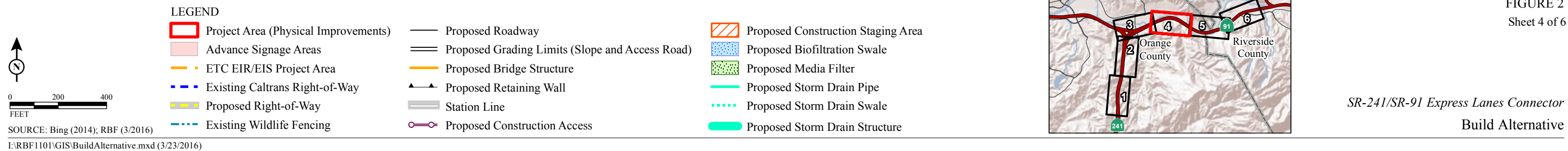
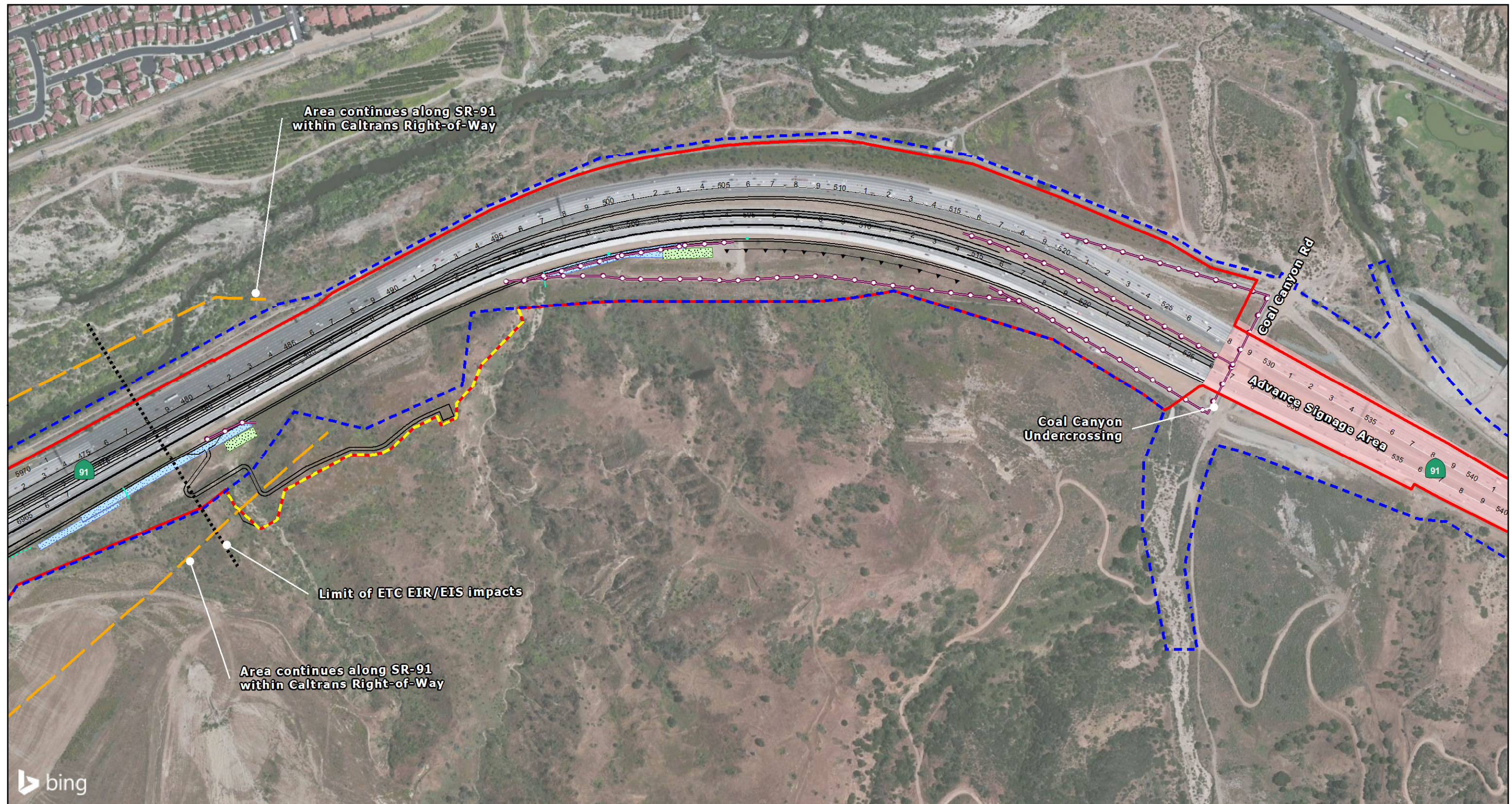
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Build Alternative

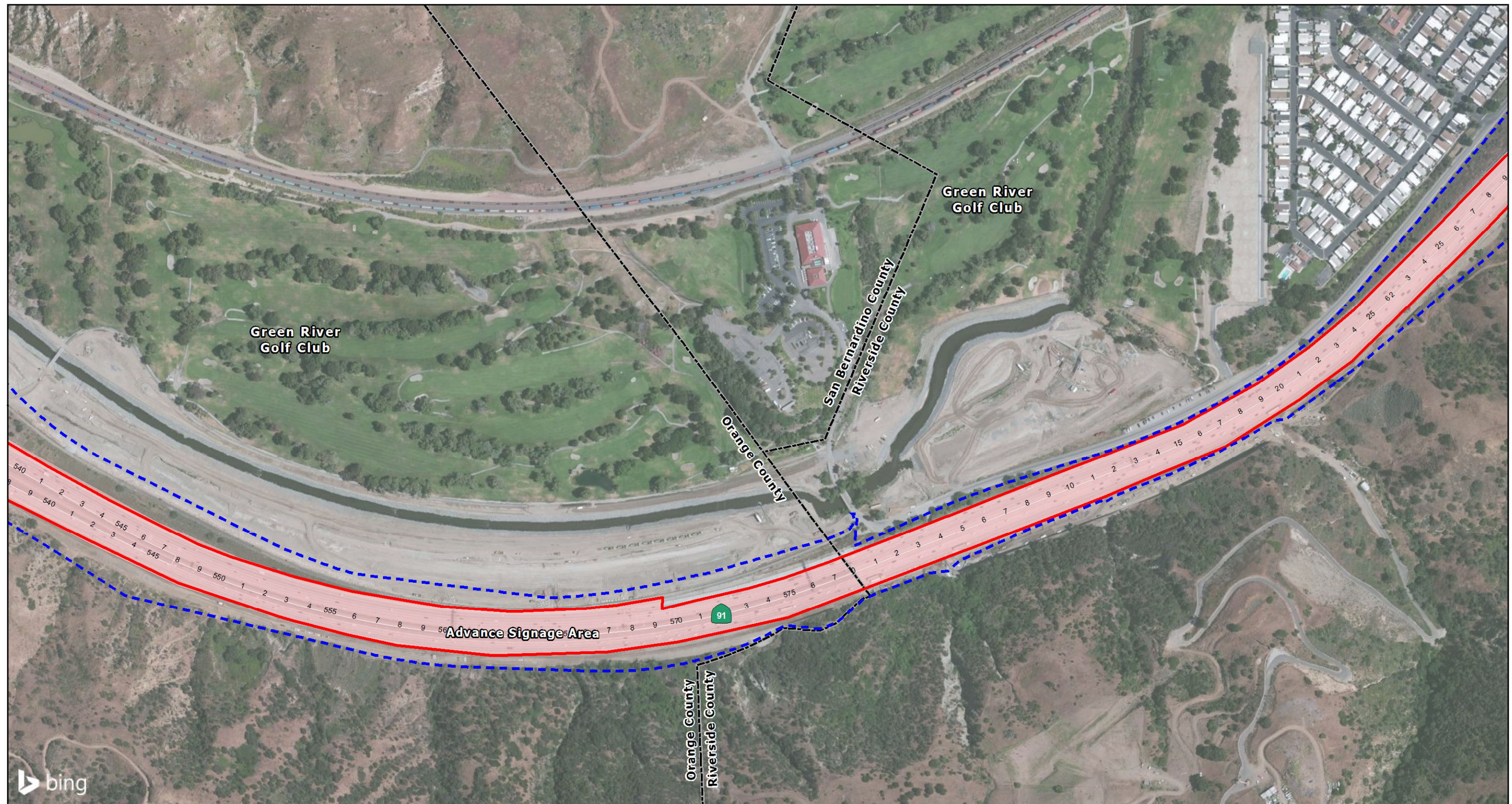
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| Project Area (Physical Improvements) | Proposed Roadway | Proposed Construction Staging Area |
| Advance Signage Areas | Proposed Grading Limits (Slope and Access Road) | Proposed Biofiltration Swale |
| ETC EIR/EIS Project Area | Proposed Bridge Structure | Proposed Media Filter |
| Existing Caltrans Right-of-Way | Proposed Retaining Wall | Proposed Storm Drain Pipe |
| Proposed Right-of-Way | Station Line | Proposed Storm Drain Swale |
| Existing Wildlife Fencing | Proposed Construction Access | Proposed Storm Drain Structure |

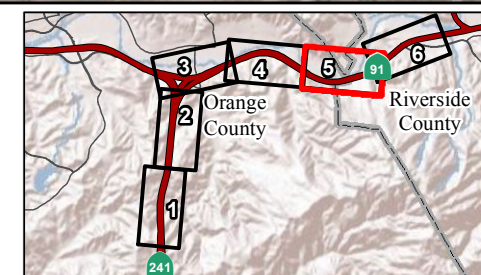


FIGURE 2
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*SR-241/SR-91 Express Lanes Connector
Build Alternative*

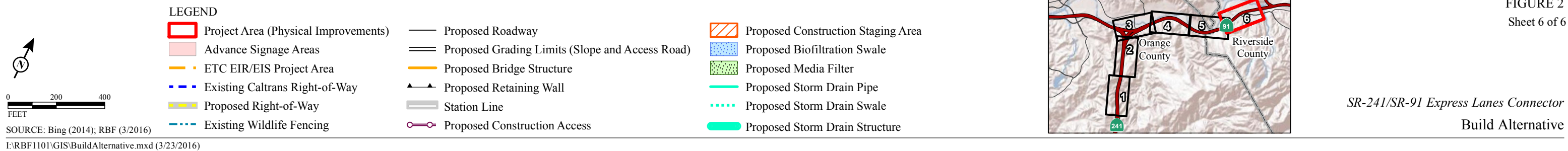


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tapering down to three lanes between the connector and Coal Canyon Undercrossing. The number of existing eastbound SR-91 general purpose lanes would be maintained within the project limits. The eastbound *91 Express Lanes* would have a 4 ft buffer on the right separating the general purpose lanes, and a 4 ft buffer to the left separating the express connector lane. The buffers would transition to 0 ft to join the SR-91 CIP at the eastern terminus of the Project Limits. Approximately 4,500 ft west of Coal Canyon Undercrossing, grading into an existing slope on the south side of SR-91 would be required to accommodate the realigned eastbound SR-91 lanes (Figure 2, Sheet 4). The grading would span approximately 1,300 ft along eastbound SR-91. A maintenance access road would be provided along the edge of slope grading. These improvements would provide a four-lane express lane facility, tapering down to three lanes between the connector and Coal Canyon Undercrossing.

1.3.1.4. Improvements on Westbound SR-91

At the eastern terminus of the Project, the westbound *91 Express Lanes* would be restriped and the median widened to accommodate the addition of the express connector lane within the *91 Express Lanes* to the southbound SR-241 median-to-median connector. The connector lane would begin approximately 1,000 ft west of Coal Canyon Undercrossing and extend west for approximately 4,500 ft in the SR-91 median ending at the express lanes connector. The auxiliary express lane at the SR-91 CIP connection would be extended in the westbound direction ending 2,000 ft west of Coal Canyon Undercrossing. These improvements would provide a four-lane overlap section along westbound SR-91 for approximately 1,000 ft. This 1,000 ft overlap would accommodate weaving between traffic accessing the southbound SR-241 median-to-median connector and the westbound *91 Express Lanes*. The existing eastbound SR-91 lanes would be shifted to the south.

1.3.1.5. Construction Access

The contractor would need access to the SR-91 median in order to construct the Build Alternative.

Coal Canyon Undercrossing

Coal Canyon Undercrossing is used by emergency and maintenance vehicles as a turnaround from eastbound to westbound only. Construction vehicles may use Coal Canyon as a similar turnaround. In addition, construction vehicles may access the median by entering from underneath the Coal Canyon Undercrossing. Temporary shoring and grading may need to be constructed to allow a drivable access route. This access option would be closely coordinated with Caltrans, OCTA, and RCTC.

Any restrictions with respect to the timing of access would be clearly stated in the project specifications during the Final Design phase.

The following restrictions would apply to work along the Coal Canyon Undercrossing ramps and within the undercrossing:

- No parking or equipment storage
- Maintenance of the existing fence that separates the paved road from the dirt trail
- No work within the wildlife trail on the east side of the existing fence
- No nighttime work

Gypsum Canyon Undercrossing

Construction vehicles may access the median by entering from underneath Gypsum Canyon Undercrossing. To allow an opening for construction access, part of the existing bridge deck would be removed. Temporary shoring and grading may need to be constructed to allow a drivable access route. This access option would be closely coordinated with Caltrans, OCTA, and RCTC. Construction vehicles would access Gypsum Canyon Road using the SR-91 on- and off- ramps.

Scheduled Maintenance Access

OCTA conducts regularly scheduled maintenance activities for the *91 Express Lanes* every 3 weeks on Sunday mornings. This maintenance occurs from approximately 6:00 a.m. until 12:00 p.m. The entire *91 Express Lanes* facility is shut down during this time. This would provide an opportunity to coordinate with OCTA for approval to use these closures to transport large construction equipment to the construction site in the median of SR-91 between the eastbound and westbound *91 Express Lanes*.

Express Lane Access

Construction vehicles that meet express lane requirements may enter the lanes, paying a toll as applicable. Coordination will be required with Caltrans and OCTA for the creation of additional ingress/egress points into the median from the *91 Express Lanes* and whether to permit vehicles larger than the allowable express lane limitations.

Limited Lane Closure Access

It may be necessary to have temporary nighttime closures of the *91 Express Lanes* for construction activities such as erecting falsework, striping lanes, and installing median signs. These closures would be coordinated with Caltrans and OCTA during the Final Design phase.

1.3.2. No Build Alternative

The No Build Alternative would maintain the current configurations of SR-241 and SR-91 in the Project Area. Under this alternative, no direct connector would be constructed between the SR-241 and the *91 Express Lanes*. The SR-91 CIP will extend the existing *SR-91 Express Lanes* east from the Orange/Riverside County line to I-15 in the City of Corona. Under the No Build Alternative, motorists traveling north on SR-241 would have to use the general purpose lane connector to eastbound SR-91 and then weave across several lanes to access the eastbound RCTC SR-91 Express Lanes at the merge area near Green River Road. Similarly, motorists traveling west in the RCTC SR-91 Express Lanes would have to exit at Green River Road (3.5 mi east of the junction of SR-241 and SR-91), merge across lanes, and use the general purpose lane connector to the southbound SR-241. In addition, under the No Build Alternative, motorists would not be prevented from inappropriately “queue jumping” from the existing northbound SR-241 to the westbound SR-91 connector lanes into the northbound SR-241 to the eastbound SR-91 connector lanes during congested traffic periods, thereby disrupting traffic flow on the northbound SR-241 connector to the eastbound SR-91 general purpose lanes during PM peak hours.

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Chapter 2. Study Methods

2.1. Agency Coordination and Professional Contacts

A conference call with: Jonathan Snyder (USFWS), Sally Brown (USFWS), Valarie McFall (F/ETCA), Charles Baker (Caltrans), Kedest Ketsela (Caltrans), Art Homrighausen (LSA), Richard Erickson (LSA), and Lisa Williams (LSA), was conducted on March 10, 2016. The team discussed coastal sage scrub (CSS) habitat and what was covered under the 1994 Biological Opinion for the ETC and what was not covered by this Biological Opinion. It was agreed that areas along SR-91 east of the boundaries of the mapping for the ETC Final EIR and Final EIS and technical reports were not covered in the 1994 Biological Opinion.

Ms. Brown had the following concerns:

- The potential for light and noise to have an indirect effect on least Bell's vireo in the Santa Ana River area during and/or after construction;
- The potential for indirect effects to Braunton's milk-vetch due to the close proximity to designated critical habitat for this species; and
- The potential for indirect effects to Santa Ana sucker and its designated critical habitat.

It was also agreed that a new Biological Opinion would be initiated for the Proposed Project.

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Chapter 3. Results: Environmental Setting

3.1. Plants

Table 3.1 includes the additional species, including status, habitat requirements, and potential for occurrence, which were included on the updated USFWS Species list (Appendix A; February 11, 2016).

Caltrans has completed a landscape restoration project at Coal Canyon Undercrossing and the surrounding area was hydroseeded with a native plant mix. The planting plan is included in Appendix B.

3.2. Wildlife

There are no changes to the special-status wildlife species from those discussed in the approved NES (December 2015).

Table 3.1: Listed, Proposed, and Plant Species, Natural Communities, and Critical Habitat Potentially Occurring or Known to Occur in the Vicinity of the Project Area

Common Name	Scientific Name	Status	General Habitat Description	Flowering Period	Habitat Present/Absent	Rationale
San Diego ambrosia	<i>Ambrosia pumila</i>	FE CRPR: 1B.1	Clonal herbaceous perennial. Occurs primarily on upper terraces of rivers and drainages, but also in vernal pools. Found primarily in open grassland, but also in disturbed, and ruderal areas. Generally found at or below elevations of 1,598 ft.	April–October	A	Project site is outside the known range of the species.

Status:

FE = Federal Endangered

Habitat Present/Absent:

A = No habitat is present and no further work needed.

California Native Plant Society (CNPS) California Rare Plant Rank (CRPR) designations:

CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere.

ft = foot/feet

Chapter 4. Results: Biological Resources, Discussion of Impacts, and Mitigation

4.1. Special-Status Plant Species

A total of seven of the 40 special-status plant species with potential of occurring within the Biological Study Area (BSA) are federal- and/or State-listed as threatened, endangered, or candidate species: Munz's onion, Braunton's milk-vetch, thread-leaved brodiaea, San Fernando Valley spineflower, slender-horned spineflower, Santa Ana River woollystar, and Gowen cypress. There is little or no suitable habitat within the BSA for Munz's onion, Braunton's milk-vetch (designated critical habitat and known occurrences are adjacent to the BSA), San Fernando Valley spineflower, slender-horned spineflower, Santa Ana River woollystar, and Gowen cypress.

4.1.1. Discussion of Braunton's Milk-vetch

4.1.1.1. Project Impacts

As discussed in the approved NES (December 2015), although the Proposed Project is not expected to directly impact any designated critical habitat for this species, the disturbance limits are adjacent to Braunton's milk-vetch-designated critical habitat, and the Project may cause temporary indirect impacts to designated critical habitat during construction due to accumulated dust on the leaves of any Braunton's milk-vetch plants that may be present. However, the above-ground manifestation of any plants during the grading period is unlikely. Furthermore, dust accumulation would be minimal due to standard dust control requirements, and effects would be short-term due to standard Natural Community Conservation Plan (NCCP)/Habitat Conservation Plan (HCP) construction minimization measures that call for rinsing dust off plants adjacent to construction.

4.1.1.2. Avoidance and Minimization Efforts

This species is considered absent from the BSA due to lack of suitable habitat; however, Braunton's milk-vetch designated critical habitat is adjacent to the BSA.

- To the greatest extent possible, disturbance limits in proximity to the Braunton's milk-vetch critical habitat will be conveyed to the engineering team so that measures can be taken to minimize potential indirect effects. Steps taken during the final design phase will include reducing the lateral work limits to avoid

sensitive habitat and that construction staging areas are located in areas that have been previously disturbed or developed. All Proposed Project disturbance limits adjacent to critical habitat will be delineated as Environmentally Sensitive Areas (ESAs) during construction.

- In conjunction with the final design and prior to site preparation, all sensitive species and special habitats within 300 ft of the Project Area shall be mapped on the grading plans by a qualified biologist. Sensitive and candidate species and special habitats shall be defined as:
 - Coastal California gnatcatcher
 - Designated critical habitat for Coastal California gnatcatcher
 - Thread-leaved brodiaea
 - Designated critical habitat for Branton's milk-vetch
 - Least Bell's vireo
 - Southwestern willow flycatcher
 - Drainages and streambeds
 - Coastal sage scrub
 - Coast Live Oak Woodland

The ETC Final EIR and Final EIS Measures B-8 and B-11 and NCCP/HCP Construction Minimization Measure 6 are also applicable to Branton's milk-vetch and its designated critical habitat.

- **ETC Final EIR and Final EIS Measure B-8:** *For the period covering all site preparation, grading and construction, a resource management coordinator shall monitor wildlife [and plant] habitat preservation to ensure that the ESAs and areas outside the right-of-way are not adversely impacted. The monitor shall be on site before, during, and after the completion of site preparation, grading and construction.*
- **ETC Final EIR and Final EIS Measure B-11:** *Prior to site preparation, grading and construction, TCA shall implement procedures for protecting sensitive and candidate species and special habitats [particularly Branton's milk-vetch critical habitat] identified and mapped on grading plans, as required by Mitigation Measure B-10, during site preparation, grading, construction and maintenance activities by following Caltrans Environmentally Sensitive Area procedures.*

NCCP/HCP Construction Minimization Measure 6: *CSS identified in the NCCP/HCP for protection and located within the likely dust drift radius of*

construction areas shall be periodically sprayed with water to reduce accumulated dust on the leaves as recommended by the monitoring biologist.

4.2. Special-Status Animal Species Occurrences

4.2.1. Discussion of Santa Ana Sucker

4.2.1.1. Project Impacts

Suitable habitat for Santa Ana sucker is not present within the BSA. Santa Ana sucker would not be directly impacted since the portions of the Proposed Project on westbound SR-91 do not include major roadway alterations or any cut or fill.

There is some potential for Santa Ana sucker to be indirectly impacted as a result of runoff from the Proposed Project. During construction activities, excavated soil would be exposed, and there would be an increased potential for soil erosion compared to existing conditions. Furthermore, chemicals, liquid products, and petroleum products (e.g., paints, solvents, and fuels), and concrete-related waste may be spilled or leaked during construction and thereby have the potential to be transported via storm runoff into the Santa Ana River. During operation, the Proposed Project would result in an increase in impervious surface area and potentially an increase in total stormwater runoff to the Santa Ana River. However, erosion and spill prevention measures during construction (which are strictly monitored and enforced) and standard water quality control measures that are included in the project design will greatly reduce this potential adverse effect. Furthermore, the potential Santa Ana sucker habitat in the potentially affected portion of Santa Ana River has experienced little occupation by the species in recent years.

4.2.2. Discussion of Least Bell's Vireo

4.2.2.1. Project Impacts

The Proposed Project may directly and indirectly impact least Bell's vireo. Direct impacts to this species are expected due to loss of a small amount (approximately 1 acre [ac] of chaparral) of potential foraging habitat within the BSA; however, there is a lack of suitable nesting habitat. Indirect project impacts (noise, lighting, and dust) from operation in the freeway median of an already busy facility, and thus very minor increases in temporary noise levels, are not expected to substantially change any potential habitat uses by this species in the vicinity of the BSA. Lighting from advance signage would be minimal, and there would not be spillover to areas outside Caltrans right-of-way. Lighting levels would be consistent with the existing condition.

The Noise Study Report for the Proposed Project found that noise levels in the Canyon RV Park adjacent to the existing freeway are expected to increase by 1 A-weighted decibel (dBA) or less when compared to the No Build Condition. Overall, the presence of higher quality foraging habitat in the Prado Basin and the Santa Ana River make it unlikely that least Bell's vireo would be substantially affected by the Project. Direct impacts to potential foraging habitat are expected, and there is an incremental probability that the Proposed Project may temporarily redirect foraging Least Bell's vireo away from the BSA during construction. With the implementation of avoidance and minimization measures and existence of more suitable habitat in the nearby Santa Ana River and Prado Basin, the loss of potentially suitable foraging habitat would have a minimal or no effect on least Bell's vireo.

Based on the most recent available survey data (2012), the closest least Bell's vireo individuals were found more than 2,000 ft away from the proposed pile-driving locations for the connector bridges and approximately 500 ft away from the construction access route at Coal Canyon Undercrossing. The maximum noise level associated with pile driving for the bridges would be less than 70 dBA at the 2012 locations, which would be similar to the existing noise levels associated with traffic on SR-91.

The Proposed Project may utilize vibratory pile driving to construct a ramp from the Coal Canyon Undercrossing into the median of SR-91 to allow construction vehicle access. This activity would be short-term. The closest least Bell's vireo individuals were found approximately 1,000 ft from this location in 2012.

Measures included as part of the Proposed Project require shielded construction lighting to avoid impacts to wildlife.

4.2.2.2. Avoidance and Minimization Efforts

Because no least Bell's vireo were observed in the BSA, no suitable nesting habitat is located in the BSA. There is limited foraging opportunity in the BSA, and there is a low probability for occurrence in the BSA. The following measure will be incorporated to avoid and minimize impacts to least Bell's vireo:

- Prior to vegetation clearing or construction within the species foraging habitat areas during the nesting period, a qualified biologist will conduct a preconstruction survey to identify the locations of any individuals. If foraging individuals are found within the vegetation-clearing area, the monitoring biologist

will flush the species prior to brush-clearing and earth-moving activities. No additional avoidance and minimization efforts are warranted.

4.2.3. Discussion of Coastal California Gnatcatcher

4.2.3.1. Project Impacts

NCCP/HCP Plan Areas

Direct and indirect impacts to California gnatcatcher (CAGN) and designated CAGN critical habitat are expected to occur as a result of Project implementation. The CAGN is likely to occur within or near the disturbance limits at the time of construction because there is a known territory in Coal Canyon approximately 65 ft south of SR-91. Vibratory pile driving at Coal Canyon Undercrossing would occur approximately 300 ft from this location and would generate a maximum noise level of approximately 79 dBA, which would be above the background traffic noise level on SR-91. With implementation of a barrier (temporary construction barrier or a noise curtain surrounding the pile driver) and assuming continuous pile driving for 30 minutes in an hour, noise levels from pile driving would be lower than traffic noise on SR-91.

Take of CAGN within the NCCP/HCP Plan Area is expected to occur through the permanent loss of approximately 2.98 ac (CSS [2.61 ac], nonnative grassland [0.37 ac]) and temporary loss of approximately 11.85 ac (CSS [11.47 ac], nonnative grassland [0.38 ac]) of occupied habitat in the median of the SR-241/SR-91 junction. Take of designated CAGN critical habitat within the NCCP/HCP Plan Area, regardless of occupation, is also expected to occur through permanent loss of approximately 19.72 ac and temporary loss of approximately 12.80 ac, which includes permanent loss of approximately 0.56 ac and temporary loss of approximately 0.09 ac on the County parcel south of SR-91 (Table 4.1, below; Appendix J, Project Impacts to Biological Resources map). This designated critical habitat area is along SR-91 at the eastern end of the Project.

As a covered project, the NCCP/HCP Implementation Agreement (1996; page 33) specifies take authorization within the right-of-way of the SR-241 and SR-91 corridors, which includes the known territory location of the CAGN within the Project Area.

Additionally, the NCCP/HCP Implementation Agreement (page 127) specifically states that take authorization for TCA, as noted in the Biological Opinion

Table 4.1: Potential Impacts to Coastal California Gnatcatcher Occupied Habitat and Designated Critical Habitat Within and Outside the NCCP/HCP Plan Area¹

Coastal California Gnatcatcher Habitat ¹	Within the NCCP/HCP Plan Area ⁴				Outside the NCCP/HCP Plan Area			
	Within Caltrans Right-of-Way		Outside Caltrans Right-of-Way		Within Caltrans Right-of-Way		Outside Caltrans Right-of-Way	
	Temporary Acres	Permanent Acres	Temporary Acres	Permanent Acres	Temporary Acres	Permanent Acres	Temporary Acres	Permanent Acres
Occupied Habitat (within 1994 Biological Opinion Impact Area)								
Coastal Sage Scrub	11.47	2.61	0.00	0.00	0.00	0.00	0.00	0.00
Chaparral	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nonnative Grassland	0.38	0.37	0.00	0.00	0.00	0.00	0.00	0.00
Total Occupied Habitat	11.85	2.98	0.00	0.00	0.00	0.00	0.00	0.00
Designated Critical Habitat³ (outside 1994 Biological Opinion Impact Area)								
Coastal Sage Scrub	2.60	1.34	0.04	0.39	0.00	0.00	0.00	0.00
Chaparral	0.076 ⁵	0.11	0.004 ⁵	0.17	0.18	0.00	0.00	0.00
Nonnative Grassland	4.85	0.96	0.00	0.00	0.87	0.00	0.00	0.00
Oak Woodland ²	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00
Ruderal ²	3.12	3.51	0.00	0.00	0.58	0.00	0.00	0.00
Developed ²	2.06	13.24	0.00	0.00	6.33	1.18	0.00	0.00
Total Designated Critical Habitat²	12.71	19.16	0.09	0.56	7.96	1.18	0.00	0.00
Grand Total	24.56	22.14	0.09	0.56	7.96	1.18	0.00	0.00

¹ This table represents vegetation in the median of SR-241 (within the NCCP/HCP Plan Area) where a CAGN breeding territory was found in 2011 and the designated CAGN critical habitat at the east end of the Project along SR-91.

² Oak Woodland, Ruderal, and Developed habitat classifications are also within Designated Critical Habitat, but are not considered suitable for use by California gnatcatchers.

³ CAGN were not found in designated CAGN critical habitat during the 2011 focused surveys, thus the acreage areas are shown under separate headings.

⁴ Some of the NCCP/HCP Plan Area also includes an NCCP/HCP Existing Use Area along SR-91 (i.e., temporary impacts to coastal sage scrub include 0.03 ac).

⁵ Acreage number is shown to the thousandth place (0.000) and is not a typographical error.

ac = acre/acres

CAGN = California gnatcatcher

Caltrans = California Department of Transportation

NCCP/HCP = Natural Community Conservation Plan

SR-241 = State Route 241

SR-91 = State Route 91

(1-6-94-F-17) for the ETC, includes its junction with SR-91. However, the Proposed Project is expected to go through the Section 7 consultation process between Caltrans and the USFWS to comply with the Federal Endangered Species Act (FESA) in order to ensure consistency with these documents. Specifically, the USFWS verification and acceptance of the mitigation components for impacts to designated critical habitat within NCCP/HCP areas shall occur during Section 7 consultation since the Implementation Agreement and the Biological Opinion were completed prior to designation of CAGN critical habitat. In addition, the impacts to designated CAGN habitat are considered outside the impact area of the ETC project and, therefore, not included in the 1994 Biological Opinion.

Non-NCCP/HCP Plan Areas

Direct and indirect impacts to designated CAGN critical habitat are expected to occur as a result of Project implementation (Appendix J: Project Impacts to Biological Resources). Designated CAGN critical habitat is along SR-91 at the eastern end of the Project Area on the north and south sides of SR-91. There are two critical habitat areas in the BSA: one area begins approximately 1 mi east of the SR-241/SR-91 junction and continues east of the Project Area with the north portion outside of the NCCP/HCP Plan Area, while the second area overlaps the south side of the Project Area near the eastern edge of the Project Area and is within the NCCP/HCP Plan Area and a small portion of the NCCP/HCP Existing Use Area (less than 1.5 ac).

Regardless of occupation, an effect on designated CAGN critical habitat on non-NCCP/HCP land is expected to occur on 7.96 ac (temporary impacts) and 1.18 ac (permanent impacts) of critical habitat within Caltrans right-of-way.

However, all of the 1.18 ac of permanent impacts to designated critical habitat as mapped by USFWS include areas that are developed. No impacts to CAGN critical habitat on the County parcel are anticipated (Table 4.1).

Impacts to non-NCCP/HCP areas within Caltrans right-of-way would be covered through mitigation measures in the new Biological Opinion since CAGN critical habitat was not yet designated and was not part of the original Biological Opinion.

Table 4.1 above shows the amount of CAGN occupied habitat and designated CAGN critical habitat that would be permanently and temporarily impacted by the Proposed Project for areas within and outside of the NCCP/HCP Plan Area.

Temporary impacts are the maximum extent expected for construction staging and access.

In addition, potential direct and indirect temporary impacts due to construction activities may occur, including the increased exposure of CAGN to noise, vibration, dust, and human presence. Construction-related noise, vibration, and dust have the potential to adversely impact CAGN in the immediate vicinity of construction activities. However, implementation of the proposed minimization measures would substantially reduce those potential adverse impacts.

4.2.3.2. Avoidance and Minimization Efforts

The avoidance and minimization measures from the NCCP/HCP for the natural community CSS habitat will be implemented to avoid and minimize impacts to CAGN including those for noise, vibration, and dust impacts. Furthermore, following consultation with the USFWS, any additional measures in the new Biological Opinion regarding designated CAGN critical habitat will also be implemented. Finally, the measures below will be implemented, including the lighting measure for any nighttime work.

- Prior to the commencement of grading operations or other activities involving disturbance of coastal sage scrub (CSS) or areas of designated California gnatcatcher (CAGN) critical habitat (with constituent elements), a survey will be conducted to locate CAGN within 100 feet (ft) of the outer extent of projected soil-disturbance activities, and the locations of any such species will be clearly marked and identified on the construction/grading plans. This buffer should be clearly marked in the field by construction personnel under the guidance of the biologist. Construction or clearing will not be conducted within the project disturbance limits adjacent to the 100 ft buffer until the biologist determines that the young have fledged or the nest is no longer active.
- Prior to clearing or construction, visible barriers will be installed around CSS and designated CAGN critical habitat (with constituent elements) adjacent to the Project footprint to designate Environmentally Sensitive Areas (ESAs) to be preserved. No grading or fill activity of any type will be permitted within these ESAs. In addition, no construction activities, materials, or equipment will be allowed within the ESAs. All construction equipment will be operated in a manner so as to prevent accidental damage to nearby preserved areas. No structure of any kind, or incidental storage of equipment or supplies, will be allowed within these protected zones. Silt fence barriers will be installed at the

ESA boundary to prevent accidental deposition of fill material in areas where vegetation is adjacent to planned grading activities.

- A qualified biologist will monitor all construction activities for the duration of the Proposed Project in areas adjacent to ESA boundaries to flush out any wildlife species present prior to construction and to ensure that vegetation removal, best management practices (BMPs), ESAs, and all avoidance and minimization measures are properly followed.
- Shielded lighting will be used for any nighttime construction adjacent to CSS within CAGN-designated critical habitat to avoid and minimize artificial night-lighting impacts.
- During vibratory pile driving at Coal Canyon Undercrossing, a noise barrier (temporary construction barrier or a noise curtain surrounding the pile driver) will be installed and monitored. In addition, vibratory pile driving will be limited to no more than 30 minutes in a particular hour.
- **ETC Final EIR and Final EIS Measure B-25:** *During site preparation and grading, the TCA shall phase operations around important habitat areas to allow for completion of nesting and breeding activities for the CAGN and raptor species occurring in oak woodland ~~as well as willow and sycamore forested woodlands~~. This measure will be conducted and overseen by a qualified biologist.*
- **ETC Final EIR and Final EIS Measure B-27:** *Grading and construction activities shall be redirected temporarily around any nesting sites for a distance of 500 ft for candidate and listed species of birds and at a distance of 1,000 ft for raptors during nesting and breeding seasons. ~~In the event that a coyote, bobcat, or mountain lion den is located, grading and construction operations shall be redirected around the den for a distance of 1,000 ft. The nesting sites and dens should be resurveyed toward the end of the breeding seasons of these species to verify completion of the breeding cycle. Nests and dens that will be removed due to ETC must be removed during the nonbreeding season only.~~*

4.2.3.3. Compensatory Mitigation

NCCP/HCP Plan Areas

There are three relevant reference documents for the County of Orange, Central and Coastal Subregion NCCP/HCP, Parts I and II: the NCCP/HCP plan itself (of the same title) (County 1996a); the Joint EIR (Final EIR 553) and the EIS (Final EIS 96-26) (County 1996b); and the NCCP/HCP Implementation Agreement (County 1996c). As noted in the Implementation Agreement (page 34) and the Final EIR/EIS (pages 7–142), mitigation for all of the Transportation Corridor Agencies (TCA)

Transportation Corridors in the Central and Coastal Subregional Plan area was comprehensive and included \$6.615 million in funds and 651 ac of CSS revegetation, restoration, and preservation for three transportation corridors, including SR-241. The following components were specifically for the ETC, including the connection with SR-91.

- Contribution of \$2,015,000 to the NCCP/HCP Conservation Fund
- Revegetation and restoration of 384 ac
- Maintenance of 25 cowbird traps
- Construction of 5 wildlife undercrossings and 26 wildlife culverts

As described in Parts I and II of the NCCP/HCP documents, all development activities addressed by the NCCP/HCP are considered fully mitigated under the NCCP Act, CESA, and FESA for impacts to habitat occupied by listed and other species identified by the NCCP/HCP documents. Therefore, compensatory mitigation for Project impacts within the NCCP/HCP Plan Areas has already been completed pursuant to the NCCP Implementation Agreement; however, USFWS verification and acceptance of the mitigation components for impacts to CAGN shall occur during Section 7 consultation.

The NCCP/HCP states no amendment is needed to the NCCP/HCP as long as the infrastructure allowed has no Incidental Take beyond that described and permitted for in the NCCP/HCP. However, coordination with the USFWS is required to ensure the Proposed Project is consistent with the NCCP/HCP.

Non-NCCP/HCP Plan Areas

Temporary impacts (approximately 7.96 ac, including 6.33 ac of Developed area) and permanent impacts (1.18 ac of Developed area) to designated CAGN critical habitat are expected outside of the NCCP/HCP Plan Area. For CSS impacts to CAGN-occupied habitat or within CAGN-designated critical habitat, the proposed minimum mitigation ratio is 2:1 for permanent impacts and 1:1 for temporary impacts. This mitigation will be evaluated through coordination between Caltrans, TCA, and the USFWS. Specifically, federal Section 7 consultation between Caltrans and the USFWS will be necessary to consider potential adverse impacts to designated CAGN critical habitat within the BSA.

As of December 2014, the F/ETCA has approximately 15 ac of CSS and cactus scrub mitigation land available at its Strawberry Farms habitat restoration area in the City of Irvine. Caltrans proposes that impacts to CSS beyond those that were included in

the original Biological Opinion will be mitigated at a ratio of 2:1 for permanent impacts and 1:1 for temporary impacts. A USFWS-approved habitat restoration plan was prepared for this area (NewFields 2011). During email correspondence with F/ETCA on February 9, 2011 (prior to project initiation), Jonathan Snyder, of the USFWS, conceptually agreed to the use of the Strawberry Farms area to offset impacts to CSS and cactus scrub associated with future F/ETCA projects in the County of Orange. It is proposed that the Strawberry Farms mitigation area be used as mitigation for the Proposed Project.

The Strawberry Farms mitigation area is in the Quail Hill Preserve, part of the Coastal Reserve of the Central and Coastal NCCP/HCP, and is contiguous with Bommer and Shady Canyons, adjacent open space land including the Irvine Ranch National Natural Landmark, and a portion of the Central and Coastal NCCP/HCP. Bommer and Shady Canyons, connect with the Laguna Coast Wilderness Park and Crystal Cove State Park. The Strawberry Farms area includes habitat for rare species such as coastal cactus wren and potential habitat for CAGN and many-stemmed dudleya (*Dudleya multicaulis*) (NewFields 2011).

Avoidance and minimization measures and mitigation options described in this NES for CAGN will also be acknowledged in a Biological Assessment report.

Approximately 9.14 ac of designated CAGN critical habitat within the Caltrans right-of-way in non-NCCP/HCP Plan areas will be permanently or temporarily impacted by the project. The areas involved are actually of marginal quality for CAGN, but do have the potential to provide for at least occasional use by the species. Incidental take of habitat used by up to three pairs of CAGN is anticipated.

4.2.4. Discussion of Special-Status Bridge, Crevice, and Cavity-Dwelling Animal Species

In addition to various bat species, swallows are known to nest and inhabit Coal Canyon Undercrossing and could be present at Windy Ridge Wildlife Undercrossing and at culverts within the BSA.

4.2.4.1. Project Impacts

Impacts to cavity/crevice-dwelling birds could include temporary disturbance (such as noise, dust, and human encroachment) from construction. With implementation of avoidance and minimization measures, temporary impacts to cavity/crevice-dwelling birds would be minimized.

4.2.4.2. Avoidance and Minimization Efforts

For work on any of the bridge structures in the BSA, the following measures will be incorporated to avoid and minimize impacts to nesting birds:

- Construction of Coal Canyon Undercrossing access ramp and widening of Windy Ridge Wildlife Undercrossing will be conducted outside the bird nesting season (generally February 15 through August 31).
- Periodic monitoring by the project biologist will be conducted as needed to ensure that construction activities do not impact bridge-nesting birds at Coal Canyon Undercrossing and Windy Ridge Wildlife Undercrossing. Should project construction impact nesting birds, an exclusionary buffer will be established by the Biologist. This buffer will be clearly marked in the field by construction personnel under the guidance of the biologist, and construction activities will not be conducted in this zone until the biologist determines that the young have fledged or the nest is no longer active.

Chapter 5. Conclusions and Regulatory Determinations

5.1. Federal Endangered Species Act Consultation Summary

A new Biological Opinion will include the additional Project Area at the easternmost end of SR-91, which was not included in the original Biological Opinion. The new Biological Opinion will include any applicable mitigation measures for areas within and outside the NCCP/HCP Plan Area. In addition, Section 7 consultation is required to ensure that potential adverse impacts, to designated CAGN critical habitat within the BSA that is outside of the NCCP/HCP Plan Area, are covered and that USFWS verification and acceptance of the mitigation components for impacts to CSS occur during Section 7 consultation.

Table 5.1, below, has been updated and shows the federally listed species and any critical habitat associated with the Proposed Project and the preliminary effects determination. The seven species, and their critical habitat (as applicable), which are known from or are in the vicinity of the BSA, will be included in a Biological Assessment as part of the Section 7 consultation (i.e., thread-leaved brodiaea, Braunton's milk-vetch, southwestern willow flycatcher, least Bell's vireo, coastal California gnatcatcher, and Santa Ana sucker). The two species with "no effect" for which there is habitat present in the BSA — Munz's onion and San Fernando Valley spineflower — are also included in the Biological Assessment. The effects determination for these species will be finalized later in the USFWS Biological Opinion.

5.2. Wildlife Movement

Wildlife movement and habitat fragmentation are greatly impacted by roads. Within the Proposed Project area, wildlife movement areas include Gypsum Canyon, Coal Canyon, and B Canyon, which are wildlife linkages (CDFW 2015), and Windy Ridge Wildlife Undercrossing is a wildlife corridor.

Gypsum Canyon and Coal Canyon are in the County of Orange and pass under SR-91, while B Canyon is in Riverside County within the Proposed Project's advance signage area. These wildlife linkages (culverts) would not be directly impacted by the Proposed Project since work in these areas is within the median or along the paved roadways.

Table 5.1: Preliminary Effects Determination for Federally Listed Species

Listed Species and Critical Habitat ¹	Federal Status	Rational	Effects Determination ^{2, 3}
Listed Species			
Munz's onion <i>Allium munzii</i>	Endangered	Limited habitat for this species is present. Surveys have been negative.	No effect
Braunton's milk-vetch <i>Astragalus brauntonii</i>	Endangered	No habitat available. Surveys have been negative.	NLAA
Thread-leaved brodiaea <i>Brodiaea filifolia</i>	Threatened	Marginally suitable habitat for this species is present. Surveys have been negative.	NLAA
San Fernando Valley spineflower <i>Chorizanthe parryi</i> var. <i>fernandina</i>	Candidate	Limited habitat for this species is present. Surveys have been negative.	No effect
Slender-horned spineflower <i>Dodecahema leptoceras</i>	Endangered	Suitable habitat is absent.	No effect
Santa Ana River woollystar <i>Eriastrum densifolium</i> ssp. <i>sanctorum</i>	Endangered	Suitable habitat is absent.	No effect
Gowen cypress <i>Hesperocyparis goveniana</i>	Endangered	Suitable habitat is absent.	No effect
Riverside fairy shrimp <i>Streptocephalus woottoni</i>	Endangered	Suitable habitat is absent.	No effect
San Diego fairy shrimp <i>Branchinecta sandiegensis</i>	Endangered	Suitable habitat is absent.	No effect
Delhi Sands flower-loving fly <i>Rhaphiomidas terminates abdominalis</i>	Endangered	Suitable habitat is absent.	No effect
Quino checkerspot butterfly <i>Euphydryas editha quino</i>	Endangered	Suitable habitat is absent.	No effect
Santa Ana sucker <i>Catostomus santaanae</i>	Threatened	Suitable habitat is absent but is present in the Santa Ana River north of SR-91.	NLAA
Arroyo toad <i>Anaxyrus californicus</i>	Endangered	Suitable habitat is absent.	No effect
Western yellow-billed cuckoo <i>Coccyzus americanus occidentalis</i>	Threatened	Suitable habitat is absent.	No effect
Least Bell's vireo <i>Vireo bellii pusillus</i>	Endangered	Suitable nesting habitat is absent.	NLAA
Southwestern willow flycatcher <i>Empidonax traillii eximius</i>	Endangered	Suitable nesting habitat is absent.	NLAA
Critical Habitat			
Braunton's milk-vetch	Final Designated	One critical habitat polygon occurs on the south side of SR-91 just outside the BSA.	NLAA
Coastal California gnatcatcher	Final Designated	Two critical habitat polygons occur in the BSA along the SR-91.	May affect
Santa Ana sucker	Final Designated	North of the BSA in the Santa Ana River.	NLAA

¹ Includes species from the USFWS list of species that may occur in the Project Area (February 2, 2015).² Expected effects determination with implementation of the NCCP/HCP Construction-Related Minimization Measures and other proposed mitigation measures for both NCCP/HCP Plan Areas and non-NCCP/HCP Plan Areas.³ Effects Determinations: No effect; May affect; NLAA: Not likely to adversely affect; LAA: May affect, likely to adversely affect.

BSA = Biological Study Area

NCCP/HCP = Natural Community Conservation Plan/Habitat Conservation Plan

SR-91 = State Route 91

USFWS = United States Fish and Wildlife Service

To limit temporary impacts such as temporary avoidance by wildlife, construction duration at Windy Ridge Wildlife Undercrossing and Coal Canyon Undercrossing should be minimized as much as is feasible and should occur only during daylight hours, subject to public health and safety considerations. Furthermore, any indirect or direct impacts to adjacent habitat associated with construction equipment or temporary structures will be mitigated for upon completion of the Project (e.g., habitat restoration). Therefore, the following avoidance and minimization measures will be incorporated:

- If necessary for construction access, the existing wildlife fencing will be removed only after installation of temporary fencing to protect against wildlife-vehicle incidents during construction. Temporary fencing will be the same or of greater height than the existing wildlife fencing and must be maintained and functional throughout project construction. After construction, any temporary fencing will be replaced with new permanent fencing consistent with the existing wildlife fencing.
- Following Proposed Project construction, all disturbed habitat adjacent to Windy Ridge Wildlife Undercrossing will be restored with native vegetation to the extent feasible.
- Construction equipment maintenance, lighting, and staging must be in designated areas, away from Windy Ridge Wildlife Undercrossing and Coal Canyon Undercrossing.
- To limit temporary impacts such as temporary avoidance by wildlife, construction duration at this location should be minimized as much as is feasible and should occur only during daylight hours, subject to public health and safety considerations. However, if work must be done at night, noise and direct lighting will be directed away from Windy Ridge Wildlife Undercrossing and Coal Canyon Undercrossing.
- Windy Ridge Wildlife Undercrossing and Coal Canyon Undercrossing will be kept clear of all equipment or structures that could potentially serve as barriers to wildlife passage.
- Within Windy Ridge Wildlife Undercrossing, structures required for bridgework would be erected in a manner so as not to block the main underpass. Scaffolding and false work would be restricted to the sides of the underpass to maintain the functionality of the crossing.

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Chapter 6. References

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Appendix A. USFWS Species List

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United States Department of the Interior

FISH AND WILDLIFE SERVICE

Carlsbad Fish and Wildlife Office
2177 SALK AVENUE - SUITE 250
CARLSBAD, CA 92008

PHONE: (760)431-9440 FAX: (760)431-5901

URL: www.fws.gov/carlsbad/



Consultation Code: 08ECAR00-2016-SLI-0387

February 11, 2016

Event Code: 08ECAR00-2016-E-00528

Project Name: SR-241/SR-91 Express Lanes Connector

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, and proposed species, designated critical habitat, and candidate species that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment



United States Department of Interior
Fish and Wildlife Service

Project name: SR-241/SR-91 Express Lanes Connector

Official Species List

Provided by:

Carlsbad Fish and Wildlife Office
2177 SALK AVENUE - SUITE 250
CARLSBAD, CA 92008
(760) 431-9440
<http://www.fws.gov/carlsbad/>

Consultation Code: 08ECAR00-2016-SLI-0387

Event Code: 08ECAR00-2016-E-00528

Project Type: TRANSPORTATION

Project Name: SR-241/SR-91 Express Lanes Connector

Project Description: Transportation Corridor agencies(TCA) in corporation with California Department of Transportation propose to construct new direct connectors between SR-241 toll lanes and SR-91 Express lanes. Project is located in Orange and Riverside counties.

Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.



United States Department of Interior
Fish and Wildlife Service

Project name: SR-241/SR-91 Express Lanes Connector

Project Location Map:



Project Coordinates: The coordinates are too numerous to display here.

Project Counties: Orange, CA | Riverside, CA



United States Department of Interior
Fish and Wildlife Service

Project name: SR-241/SR-91 Express Lanes Connector

Endangered Species Act Species List

There are a total of 12 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Amphibians	Status	Has Critical Habitat	Condition(s)
arroyo toad (<i>Anaxyrus californicus</i>) Population: Entire	Endangered	Final designated	
Birds			
Coastal California gnatcatcher (<i>Poliophtila californica californica</i>) Population: Entire	Threatened	Final designated	
Least Bell's vireo (<i>Vireo bellii pusillus</i>) Population: Entire	Endangered	Final designated	
Southwestern Willow flycatcher (<i>Empidonax traillii extimus</i>) Population: Entire	Endangered	Final designated	
Crustaceans			
San Diego fairy shrimp (<i>Branchinecta sandiegonensis</i>)	Endangered	Final designated	
Fishes			
Santa Ana sucker (<i>Catostomus santaanae</i>)	Threatened	Final designated	



United States Department of Interior
Fish and Wildlife Service

Project name: SR-241/SR-91 Express Lanes Connector

Population: 3 CA river basins			
Flowering Plants			
Braunton's milk-vetch (<i>Astragalus brauntonii</i>)	Endangered	Final designated	
San Diego ambrosia (<i>Ambrosia pumila</i>)	Endangered	Final designated	
Santa Monica Mountains dudleya (<i>Dudleya cymosa</i> ssp. <i>ovatifolia</i>)	Threatened		
Thread-Leaved brodiaea (<i>Brodiaea filifolia</i>)	Threatened	Final designated	
Insects			
Delhi Sands flower-loving fly (<i>Rhaphiomidas terminatus abdominalis</i>) Population: Entire	Endangered		
Quino Checkerspot butterfly (<i>Euphydryas editha quino</i> (= <i>e. e. wrighti</i>)) Population: Entire	Endangered	Final designated	



United States Department of Interior
Fish and Wildlife Service

Project name: SR-241/SR-91 Express Lanes Connector

Critical habitats that lie within your project area

The following critical habitats lie fully or partially within your project area.

Birds	Critical Habitat Type
Coastal California gnatcatcher (<i>Polioptila californica californica</i>) Population: Entire	Final designated
Fishes	
Santa Ana sucker (<i>Catostomus santaanae</i>) Population: 3 CA river basins	Final designated
Flowering Plants	
Braunton's milk-vetch (<i>Astragalus brauntonii</i>)	Final designated

Appendix B. Coal Canyon Undercrossing Planting Plan

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EROSION CONTROL (HYDROSEED)

SEQUENCE	ITEM	MATERIAL		APPLICATION RATE
		DESCRIPTION	TYPE	
STEP 1	HYDROSEED	SEED	MIX 1	80 LB/ACRE
		FIBER	WOOD	500 LB/ACRE
STEP 2	HYDROMULCH	FIBER	WOOD	1,500 LB/ACRE
		TACKIFIER	GUAR	125 LB/ACRE
STEP 3	COMPOST	SHREDDED BARK	MED/LARGE	128 CY/ACRE

EROSION CONTROL (HYDROSEED)

DESCRIPTION	COMPOST	HYDROSEED	HYDROMULCH
	SQFT	SQFT	SQFT
EROSION CONTROL (HYDROSEED)	312,063	312,063	312,063
TOTAL	312,063	312,063	312,063

SEED MIX

SEED	BOTANICAL NAME (COMMON NAME)	PERCENT GERMINATION (MINIMUM)	POUNDS PURE LIVE SEED PER ACRE (SLOPE MEASUREMENT)
EROSION CONTROL (HYDROSEED)	DESCHAMPSIA CESPITOSA ¹ (TUFTED HAIR GRASS)	40	10
	ENCELIA CALIFORNICA ¹ (CALIFORNIA ENCELIA)	35	3
	ERIOPHYLLUM CONFERTIFLORUM ¹ (GOLDEN YARROW)	40	5
	ESCHSCHOLZIA CALIFORNICA ¹ (CALIFORNIA POPPY)	45	7
	HELIANTHEMUM SCOPARIUM ¹ (PEAK RUSH-ROSE)	40	5
	LEYMUS CONDENSATUS ¹ (WILD RYE)	35	20
	LONICERA SUBSPICATA ¹ (HONEYSUCKLE)	40	5
	LUPINUS NANUS ¹ (LUPINE)	40	5
NASSELLA PULCHRA ¹ (PURPLE NEEDLE GRASS)	40	20	
¹ SEED PRODUCED IN CALIFORNIA ONLY.			

PLANT LIST

PL - 2

Dist

COUNTY

ROUTE

POST MILES
TOTAL PROJECT

SHEET
No.

TOTAL
SHEETS

12


Oran

91

17.8/18.2

10

17




05-04-12

LICENSED LANDSCAPE ARCHITECT

12-24-12

PLANS APPROVAL DATE



THE STATE OF CALIFORNIA OR ITS OFFICERS
OR AGENTS SHALL NOT BE RESPONSIBLE FOR
THE ACCURACY OR COMPLETENESS OF SCANNED
COPIES OF THIS PLAN SHEET.

BORDER LAST REVISED 7/2/2010

USERNAME => s123631
DGN FILE => 1200020058te002.dgn

RELATIVE BORDER SCALE
IS IN INCHES

0

1

2

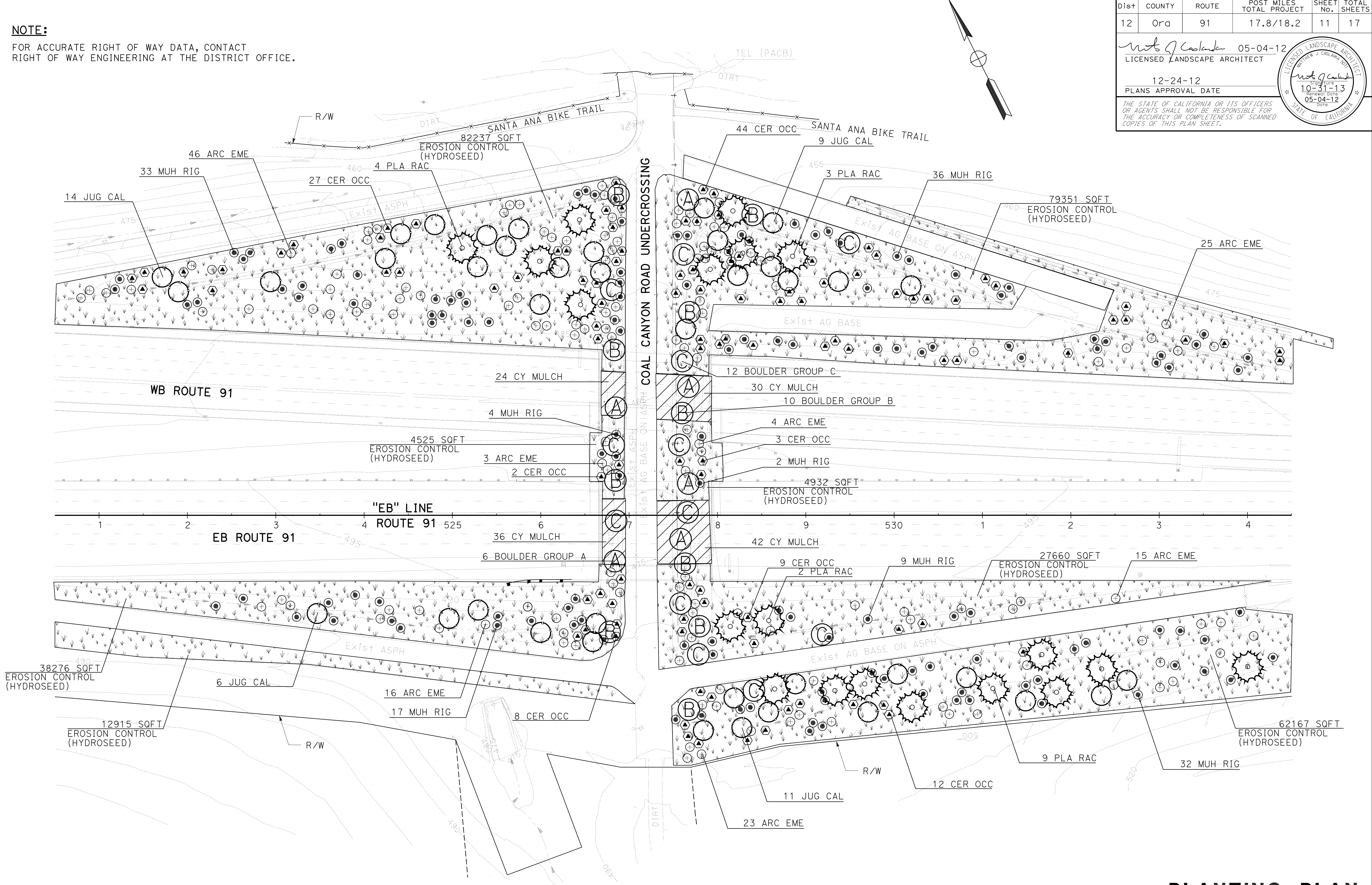
3

UNIT 3014


PROJECT NUMBER & PHASE

12000200581

NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.




Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Or	91	17.8/18.2	11	17


05-04-12
LICENSED LANDSCAPE ARCHITECT

12-24-12
PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS
OR AGENTS SHALL NOT BE RESPONSIBLE FOR
THE ACCURACY OR COMPLETENESS OF SCANNED
COPIES OF THIS PLAN SHEET.



APPROVED FOR PLANTING WORK ONLY

PLANTING PLAN
PP-1

SCALE: 1" = 50'